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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,286	03/04/2004	Colin N.B. Cook	2540-0707	3146
42624 7590 12/12/2007 DAVIDSON BERQUIST JACKSON & GOWDEY LLP 4300 WILSON BLVD., 7TH FLOOR ARLINGTON, VA 22203			EXAMINER DISTEFANO, GREGORY A	
			ART UNIT 2176	PAPER NUMBER
			MAIL DATE 12/12/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<p align="center"><b>Office Action Summary</b></p>	<p><b>Application No.</b></p> <p>10/792,286</p>	<p><b>Applicant(s)</b></p> <p>COOK ET AL.</p>	
	<p><b>Examiner</b></p> <p>Gregory A. DiStefano</p>	<p><b>Art Unit</b></p> <p>2176</p>	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 September 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 12-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 12-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/4/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This action is in response to the amendment filed on 9/27/2007.
2. As per applicant's amendment, claims 3-11 have been canceled, claims 12-15 have been added and claims 1, 2, and 12-15 are currently pending.

### ***Specification***

3. The previous objections to the specification are hereby withdrawn due to applicant's amendment filed 9/27/2007.

### ***Claim Objections***

4. The previous objection to claim 11 is hereby withdrawn due to applicant's amendment filed 9/27/2007.
5. Claim 1 is objected to because of the following informalities: in the third limitation of the claim, it recites "synchronizing the position of a logical mouse and the position of **an actual mouse the absolute movement to**", which the examiner finds to be unclear. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, 12, 13 and 15 are rejected under 35 U.S.C. 102(b) as being unpatentable over Schneider et al. (US 2002/0038334), hereinafter Schneider, in view of Williams et al. (US 2002/0129353), hereinafter Williams.

7. As per claim 1, Schneider teaches the following:

*testing an operating system of the logical mouse to determine if the operating system of the logical mouse supports the use of a USB-based human interface descriptor (HID) using absolute movement of a mouse cursor to an absolute position other than the origin, (pg. 7, paragraph [0072]), i.e. the microprocessor performs: (1) basic system testing (e.g., code checking, FPGA checking, and RAM testing), (2) transferring mouse and keyboard signals, (pg. 3, paragraph [0031]), i.e. the keyboard and mouse are merged into a single interface (e.g. USB or Macintosh-style). The examiner finds that Schneider's teaching of mouse controls implementing a USB interface encompasses applicant's limitation of using "USB-based-HID" since all input sent from a USB mouse would be a USB HID. Furthermore, as Schneider's microprocessor of controller 50 handles all testing of the system as well as sending the mouse commands to different devices, Schneider is seen as anticipating "testing the remotely controlled devices";*

*utilizing a universal serial bus (USB) protocol to provide absolute movement of the mouse cursor (forced to cross-hairs) on a host computer to an absolute position (pseudo-cursor) other than the origin if the operating system supports the use of a USB-based human interface descriptor (HID) using absolute movement of the mouse cursor to an absolute position other than the origin, (pg. 9, paragraph [0087]), i.e. the controlling computer 12 generates a pseudo-cursor (e.g. a set of cross-hairs) that indicates where the digitized cursor should be. To initialize this process, the digitizer control application 220 sets the cursor of the target computer to a known location. For example, by sending to the target computer a series of mouse commands, it is possible to drive the cursor to the upper left hand-corner, no matter where the cursor was prior the series of commands. The original cursor is then forced back down to be aligned with the cross-hairs;*

*synchronizing the position of a logical mouse and the position of the actual mouse the absolute movement to the absolute position other than the origin without operator intervention. As Schneider describes in pg. 3, paragraph [0031], the re-alignment of a controlled pointer to the pseudo-cursor happens automatically within the system itself.*

8. Regarding claim 2, Schneider teaches the method of claim 1 as described above. Schneider further teaches the following:

*a virtual presence client (VPC) calculates said logical mouse position. As Schneider teaches in pg. 9, paragraph [0087], either the digitizer control application 220*

or the analyzing digitizer control application 240 may control the controlled cursor position to force it to a received position.

9. Regarding claim 12, Schneider teaches the method of claim 1 as described above. Schneider further teaches the following:

*utilizing the universal serial bus (USB) protocol to provide the absolute movement of the mouse cursor comprises sending USB commands across an IP network, (pg. 3, paragraph [0029]), i.e. the controlling computer 12 also includes a communications device 53 for communicating with the target device(s). Such a device 53 may include (1) a modem for connecting via a telephone connection, (2) a wireless transceiver for wirelessly communicating, and (3) a wired adapter (e.g. an Ethernet or token ring adapter). In any of those configurations, the controlling computer 12 communicates with a target controller 50 using any selected communications protocol (e.g. TCP/IP, UDP or RDP).*

10. Regarding claim 13, Schneider teaches the method of claim 1 as described above. Schneider further teaches the following:

*buffering USB commands between the actual mouse and the host computer, (pg. 3, paragraph [0035]), i.e. the target controller 50 operates to capture the video output of the target device. The captured video signals are stored in either a frame buffer internal to the controller card or in a memory shared with other components of the computer. In*

addition, the controller card 50 fills a set of keyboard/mouse buffers internal to the controller card with keyboard and mouse commands to be sent to the target device.

11. Regarding claim 15, Schneider teaches the method of claim 1 as described above. Schneider further teaches the following:

*aggregating mouse movement commands prior to sending the mouse movement commands across the IP network*, (pg. 9, paragraph [0088], i.e. in order to avoid overloading the target computer with mouse packets, the digitizing control application 220 can queue mouse commands and send those mouse commands as a group.

### ***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider as applied to claim 1 above in view Kameda (US 5,828,372).

14. Regarding claim 14, Schneider teaches the method of claim 1 as described above. However, Schneider does not explicitly teach a method where the timing of the cursor commands are emulated on the controlled system. Kameda teaches the following:

*emulating the timing characteristics of the actual mouse when applying USB commands to the host computer*, (column 6, lines 35-44), i.e. the terminal controller 103 causes the output information to be displayed on the display device 101 of user A. At the same time, the output information is transferred by the terminal controller 103 through the communication line 106 to the terminal controller 109 of user B. The terminal controller 109 causes the display device 107 to display the output information. Thus, the same output information generated by the application program 105 will be displayed on the display devices 101 and 107 of users A and B, respectively. The examiner would like to note that as Kameda's method of controlling the cursor on a controlling device and a controlled device at the same time, the timing of both cursor movements would be the same, thus the commands on the host computer emulate the timing characteristics of the actual mouse.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the cursor control method of Schneider with the real-time control method of Kameda. One skilled in the art would have been motivated to have made such modifications because both Schneider and Kameda are analogous art in the field of remotely controlling separate display devices, specifically, cursors displayed on those devices. Furthermore, Kameda directly states a problem which they look to address in column 1, lines 47-50, that "user B may experience some difficulty in learning how to manipulate the application program due to the speed at which information displayed on the display screen changes", thus describing a desire in the art to present information at a speed in which a controlling computer is operated.



***Response to Arguments***

**15.** Applicant's arguments filed on 9/27/2007 have been fully considered but they are not persuasive. Applicant argues on pg. 7 of their amendment that the Schneider reference fails to disclose "using absolute movement of the mouse cursor to an absolute position other than the origin".

The examiner respectfully disagrees.

Schneider does in fact teach an "absolute position" in their teaching of a "pseudo-cursor" which indicates a position where the controlled cursor should be. Schneider further teaches moving a controlled cursor to an "absolute position" by using "absolute movement" by forcing the controlled cursor to a known position and then to the pseudo-cursor (see pg. 9, paragraph [0087]).

Applicant further argues that their invention avoids the process in Schneider of first driving the controlled cursor to the origin and then back by using their "absolute position" method. While the limitations of the claims as currently written do not contain language to such an effect, applicant's argument shall be addressed in the goal of furthering prosecution. Schneider does in fact teach a method where such unnecessary cursor movements are avoided in pg. 9, paragraph [0088], where they describe a method where only "periodic samples of the mouse position" are sent to the controlled cursor a movement command that only represents the difference between the new position and the previous mouse position. This teaching of Schneider is interpreted as a controlling device taking a periodic sample of their cursor position and sending that

position to a controlled device. The controlled device then reads the position and moves the controlled cursor from its current position, where ever that may be, to the position sent from the controlling device. Thus, an "absolute position" is sent from a controlling device to a controlled device and the controlled device implements "absolute movement" to move their cursor from a current position to the position sent by the controlling device.

Furthermore, the examiner would like to make note of Schneider's teaching on pg. 5, paragraph [0050] that "small changes" in the position of the mouse are filtered out to prevent errors.

### ***Conclusion***

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory A. DiStefano whose telephone number is (571)270-1644. The examiner can normally be reached on 7:30am-5:00pm Mon.-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached on (571)272-4137. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GAD  
12/7/2007

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